1. Create an Entity class 'Trainee', with traineeId, traineeName, contactNo, email, gender, age as fields.

Create a class 'Batch', with batchCode, startdate, enddate and Trainee[] as fields.

Create the following overloaded methods in the 'Batch' class public Trainee getTrainee(int traineeId) thows TraineeNotFoundException public Trainee[] getTrainees(String gender)

**import** java.util.Date;

**public** **class** Batch {

**int** batchCode; Date startdate; Date enddate; Trainee[] trainee;

**public** Trainee[] getTrainee(**int** traineeId) **throws** TraineeNotFoundException{

**return** trainee;

}

**public** Trainee[] getTrainees(String gender){

**return** trainee;

}

}

2. Follow the given instructions and create an application using Java.

(i) Create an entity class named Project with member variables as projectId, projectName, projectHead, noOfResources.

(ii) Create an object for the Project class and through setters assign the values for all the member variables.

(iii) Print the corresponding object.

**public** **class** Project {

**private** **int** projectId;

**private** String projectName;

**private** String projectHead;

**private** **int** noOfResources;

**public** **static** **void** main(String[] args){

Project pr = **new** Project();

pr.setNoOfResources(5);

pr.setProjectHead("Ramudu");

pr.setProjectId(1234);

pr.setProjectName("Test");

System.***out***.println("My Project Details are : " + " Project id:" + pr.getProjectId() + " Project Name: " + pr.getProjectName() +

" project Head: " + pr.getProjectHead() + " No. of Resource" + pr.getNoOfResources());

}

**public** **int** getProjectId() {

**return** projectId;

}

**public** **void** setProjectId(**int** projectId) {

**this**.projectId = projectId;

}

**public** String getProjectName() {

**return** projectName;

}

**public** **void** setProjectName(String projectName) {

**this**.projectName = projectName;

}

**public** String getProjectHead() {

**return** projectHead;

}

**public** **void** setProjectHead(String projectHead) {

**this**.projectHead = projectHead;

}

**public** **int** getNoOfResources() {

**return** noOfResources;

}

**public** **void** setNoOfResources(**int** noOfResources) {

**this**.noOfResources = noOfResources;

}

}

3. Prepare a StringServiceProvider class which has the following methods

(a) To reverse a given string

(b) To do linear search in a given string

(c) To do search and replace operation in a given string Note: code the requirement with 2 possibilities (with and without static methods)

**public** **class** StringServiceProvider {

**public** **static** **void** stringReverse(){

}

**public** **static** **void** linearSearch(){

}

**public** **static** **void** searchReplace(){

}

**public** **void** stringRvrse(){

}

**public** **void** linearSrch(){

}

**public** **void** searchRplce(){

}

}

4. Follow the given instructions and create an application using Java.

(i) Create a ‘BankAccount’ class with 3 data members, accountNo[use String], accountName and balance.

(ii) Overload the BankAccount constructor to accept only accountNo and accountName variables.

(iii) Initialize the balance with 1000.

A: **public** **class** BankAccount {

String accountNo;

String accountName;

**int** balance=1000;

//Constructor with 2 arguments

**public** BankAccount(String accNo, String accName){

**this**.accountNo=accNo;

**this**.accountName=accName;

}

}